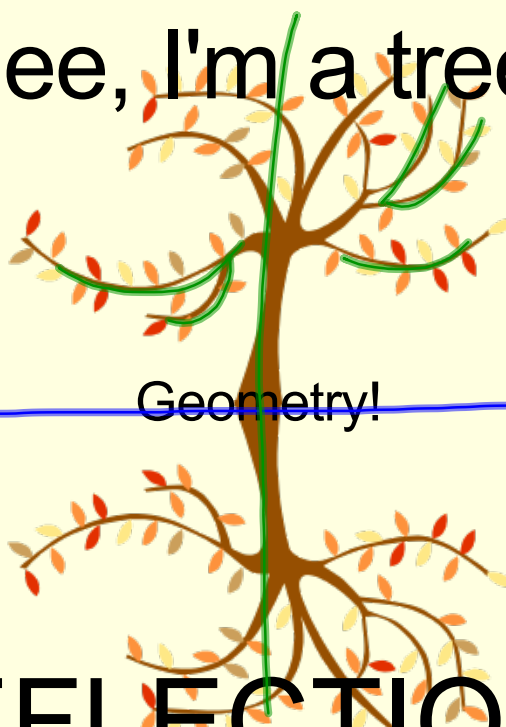


Gee, I'm a tree!

Geometry!

REFLECTIONS!



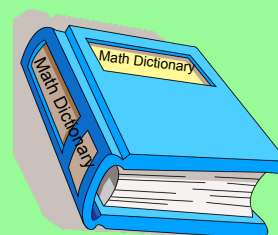
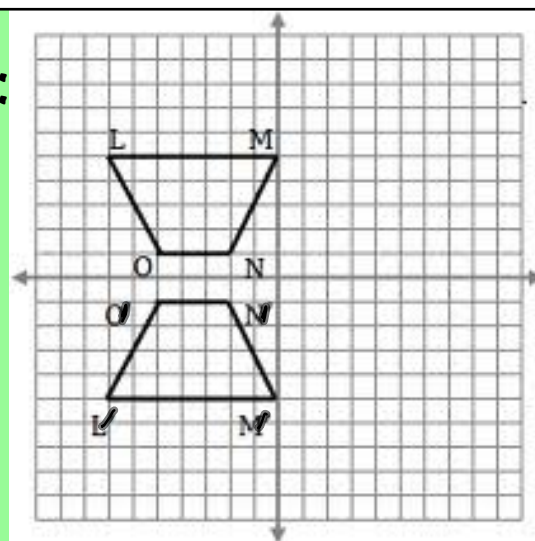
Learning Target: TSWBAT reflect an object across the x - axis by counting or by using an algorithm




Put REFLECTION in your math dictionary:

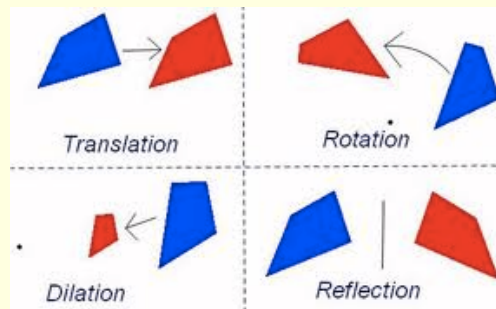
Reflection: A transformation where a figure is flipped across a line such as the x-axis or the y-axis

Algorithm: A step-by-step set of instructions you can follow to accomplish a goal.



Play A Transformation: Reflection Video
Click on link below
Note (click off ad when video starts)

 http://www.youtube.com/watch?feature=endscreen&v=j1X_UIOvEwA&NR=1



List the coordinates
for A, B, and C

A ($-8, 4$)

B ($-5, 1$)

C ($-3, 6$)

After you reflect the
triangle, list the new
coordinates for
A', B', and C'

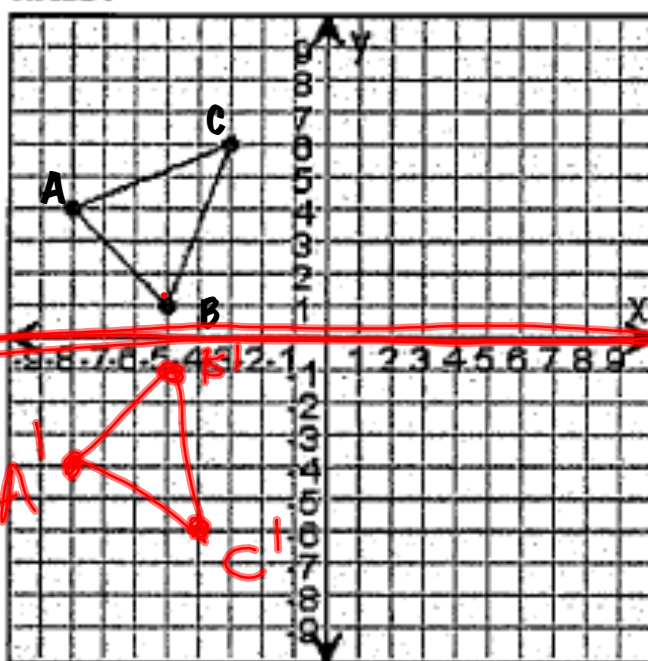
A' ($-8, -4$)

B' ($-5, -1$)

C' ($-3, -6$)

What do you notice
about the coordinates

Reflect the triangle over the x-axis.



Write a rule for reflecting over the x-axis:

List the coordinates
for A, B, and C

A (,)

B (,)

C (,)

After you reflect the
triangle, list the new
coordinates for
 A^1 , B^1 , and C^1

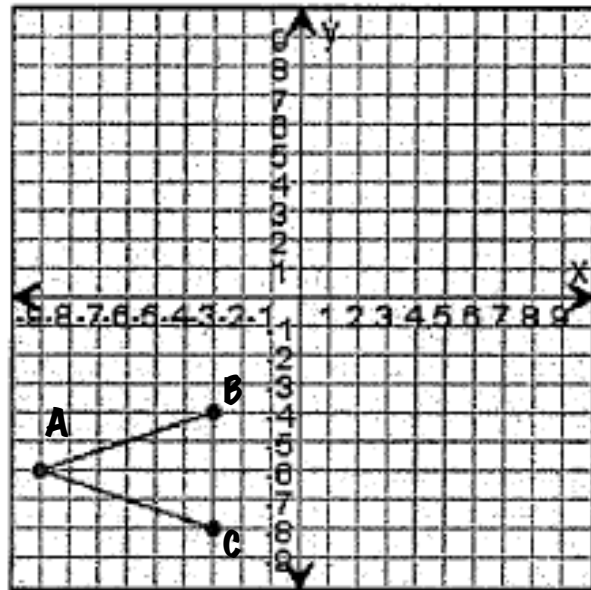
A^1 (,)

B^1 (,)

C^1 (,)

What do you notice
about the coordinates

Reflect the triangle over the x-axis.



To REFLECT over the X-AXIS use the following algorithm:

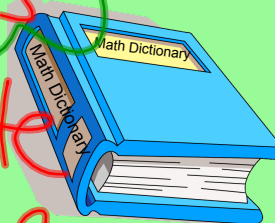
If $A(x, y)$, then $A^1(x, -y)$

— This just means "the opposite"

Example

If $A(2, 3)$, then $A^1(2, -3)$

Over the x-axis
Reflect: the x-coordinate
stays the same, the
y-coordinate is the opposite
sign.



Without Graphing...

If the following three points were reflected over the x-axis, what would the new points be?

A (2, 4)

B (-5, -7)

C (6, -2)

A' (2, -4)

B' (-5, 7)

C' (6, 2)

Learning Target: TSWBAT reflect an object over the y-axis by counting or by using an algorithm



List the coordinates
for A, B, and C

A ($-7, 2$)

B ($-3, 9$)

C ($-2, 5$)

After you reflect the
triangle, list the new
coordinates for

A', B', and C'

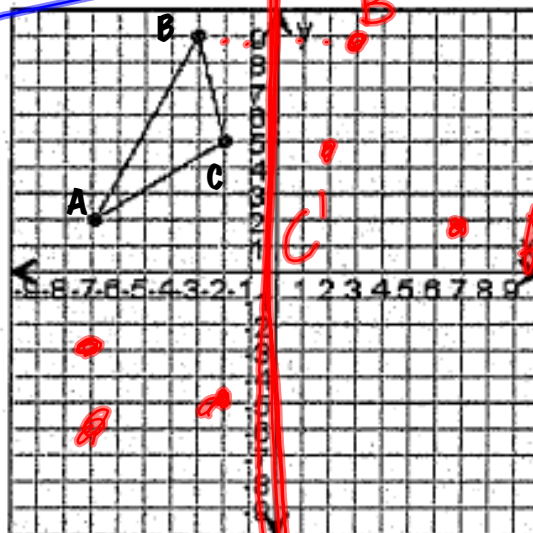
A' ($7, 2$)

B' ($3, 9$)

C' ($2, 5$)

What do you notice
about the coordinates

Reflect the triangle over the y-axis.



Write a rule for reflecting over the y-axis:

List the coordinates
for A, B, and C

A (,)

B (,)

C (,)

After you reflect the
triangle, list the new
coordinates for
A¹, B¹, and C¹

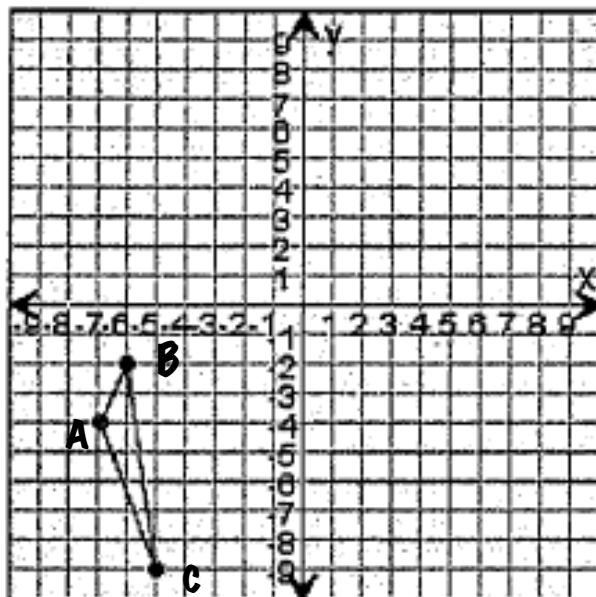
A¹ (,)

B¹ (,)

C¹ (,)

What do you notice
about the coordinates

Reflect the triangle over the y-axis.



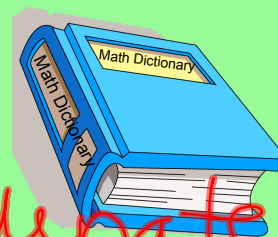
To REFLECT over the Y-AXIS use the following algorithm

If $A(x, y)$, then $A^1(-x, y)$

Example:

If $A(3, 5)$, then $A^1(-3, 5)$

Reflect over
y-axis: the x-coordinate
is the opposite of the y-coordinate.
Stays the same



Without Graphing

If the following three points are reflected over the y-axis, what would the new points be?

A (-3, -5)

B (5, -9)

C (-7, -3)

A' (3, -5)

B' (5, -9)

C' (7, -3)

Homework:
Day 1 Reflection WKSH

